

A Resurrection of a R.B. Graflex-Tele 4X5 SLR Camera



Some time ago, I acquired an old R.B. Graflex-Tele 4X5 camera. Like many of the age that this one is, it had problems. The major one was that the curtain shutter was cracked and filled with pinholes. I knew that would have to be replaced. The rest of the camera seemed in good shape. There were no holes in the bellows - The mirror was only dirty, so that was the most easy part of this "resurrection". There was no lens, however, I have a whole gaggle of lenses, and one that I had was a 7-1/2 inch focal length f4.5 lens = Perfect for this model. So all that I really had to do was replace the curtain shutter. = (Not the easiest thing to do. And expensive as well. Once again I was on my own to find something I could make one out of.)

After thinking, and two cigars later, looking around the DIY Shop in the garage, I think I found what I needed. Last month the roof was replaced. The contractor left a roll of black "vapor-barrier" plastic - over 150 feet of the stuff (i.e. DuPont™ Tyvek®). I kept it thinking that it might be useful for "something" that I could use later on. The material is extremely strong, with nylon fibers within it. It will not rip very easily, one must cut it. It is less than .023mm thick, and opaque - So = Perhaps this might work out as the material I needed? I opened the back of the camera and removed the rotating back (R.B.), then the "spring-loaded" roller, with the old cracked curtain. Then laid it flat and took measurements.

I unrolled the large roll in the driveway and measured out 71"X5-1/2" strip. (I did make a larger cut of this and would trim to fit exactly on to the "Spring-Loaded" roller assembly at the bottom of the camera box.)



Remove the Back (Being mindful of the different screws) And The "Spring Loaded" Bottom Roller - With The Old Curtain. (Then Remove the Curtain From The Roller.)



Measure The Old Curtain (71"X5-1/2") Lay Out The "Roofing Plastic" And Measure Out For The Cut. (I measured over the first cut to make SURE of a good fitting Curtain And With Scissors Cut the Material.)

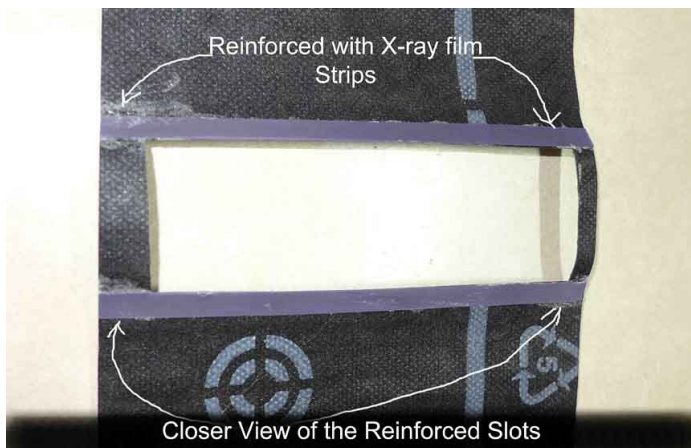
Next was to lay the old curtain over the plastic material for the correct spacing and size of the "Slots" (Apertures), and mark where to cut with an "Exacto-Knife" (or razor blade).



Remember to use a cardboard sheet Under the work to be cut to not mar the surface of your table when cutting the plastic. *(These slots must be accurate, with good clean cuts. As well as the spacing between the slots.)* Keep the old curtain for future reference to make others for Graflex 4X5 cameras.



I had to think of something for the slots to have a more rigid area at the top and bottom of the slots, in order that they would not sag or somehow get jammed. I used some scrap cuts of X-ray film for that.



Note --

I placed the textured side as to face the lens - and the slick side to face the rear of the camera. *(I was thinking that the slick side might reflect light and "bounce around" in the camera's dark chamber, thus spoiling the intended image (light fogging) on the film.)*

Now... With the new curtain in place on the bottom roller - I removed the top (advancing roller) from the chamber and gearing mechanism. And super-glued the curtain in a proper place - then put it into the camera body, with the roller assembly. (*This are a confided space, so a short (stubby) small screwdriver is needed to secure the assembly back to it's proper space.*) After aligning and adjusting the tension of the spring-loaded roller and advance roller. I finished putting the camera back together.

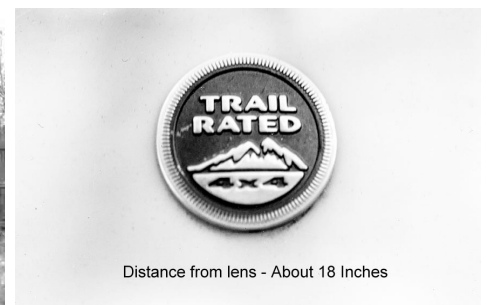


(*For disassembling and reassembling - I urge anyone attempting ANY repairs to ANY camera to First Watch three different VIDs of what you are about to do on YouTube. In this manner you shall know just what you are getting into - and the particulars of the "job" ahead of you. Of course some knowledge of simple mechanics is helpful. However - if you are not very handy at doing this sort of work, or that you are concerned about "screwing something up", or not being able to put the camera back together - you might find a friend who can do this. Or - have a camera mechanic do it for you... This WILL be a costly venture. (One of the reasons that I do most things myself - That and because I am not afraid of screwing something up.)*)

Here is the camera and lens I have repaired and cleaned up:



And here, below, are a few tests at various shutter speeds to show the results of the repairs:



I used a 12 exposure 4"X5" Graflex "Mag-Bag" for the 12 test exposures using Fuji X-ray film (HR-U) rated at ISO-100. Most of the exposures were f-8 in bright sun at 1/50th of a sec. In the shade I opted for f-5.6 and heavy shade f-3.5, all 12 exposures came out very good. The developer used was my reformulation of "Ansco-30" for 8 minutes at a temp of 18c. Hung to dry on a "drip-day" clothesline with clothes pins, indoors. Scanned with a Epson V700 scanner and inverted with a little editing using PhotoShop, assisted with "NIK Software's - Silver E-fects Pro" cropped to printable size of 5X7.

All considered with this repair I am quite pleased with the results as well as the performance of the DIY Shutter Curtain...

Yeah! I know... It may NOT be traditional materials, and not a true refurbishment - However it works. Besides - no one can see the difference, unless they open the back and see it is not an original OEM part.

It WORKS. And in that - better to be in the hands of a working photographer rather than sitting on some shelf in some "Man Cave" collecting dust and not being used. I feel that most any mechanical camera can be repaired - If not = I disassemble into parts for repairs on other cameras. Remember - replacement parts for 30 to 150 old cameras are not manufactured any longer - with the exception of someone "plastic printing" items on a 3-D printer.

Thank you for reading

James R. Kyle, Photographer - Saint Louis, Missouri

